

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appl. No. : 10/084,856
Applicant : Douglas U. Mennie et al.
Filed : February 27, 2002
Title : Automatic Funds Processing System
TC/A.U. : 3694
Examiner : Jamie H. Swartz

Docket No. : 247171-000373USD1

REPLY BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In response to the Examiner's Answer mailed on November 21, 2008, Appellants respectfully submit herein a Reply Brief.

Date: January 15, 2009

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Dear Commissioner:

This Reply Brief is filed responsive to the Examiner's Answer mailed November 21, 2008.

REMARKS

1. THE 35 U.S.C. § 112 REJECTIONS

Appellants respectfully submit that the Examiner's conclusions regarding 35 U.S.C. § 112 are factually and legally improper and should be reversed.

I. THE 35 U.S.C. § 112, 1ST PARAGRAPH, WRITTEN DESCRIPTION REJECTION

The analysis of whether the specification complies with the written description requirement calls for the Examiner to compare the scope of the claim with the scope of the description to determine whether applicant has demonstrated possession of the claimed invention

and such review “is conducted from the standpoint of one of skill in the art at the time the application was filed” (*see, e.g., Wang Labs. v. Toshiba Corp.*, 993 F.2d 858, 865, 26 USPQ2d 1767, 1774 (Fed. Cir. 1993)) and should include a determination of the field of the invention and the level of skill and knowledge in the art. ***Information which is well known in the art need not be described in detail in the specification.*** *See, e.g., Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379-80, 231 USPQ 81, 90 (Fed. Cir. 1986).

As was presented in **Exhibit A** of the Appeal Brief, discussed on pages 10-11 of the Appeal Brief, the Cummins-Allison JetSort coin sorters at the time of the invention (and before), were (and still are) designed to sort coins at about 6,000 coins per minute (100 coins per second), for an average coin mix, with an accuracy of 99.995% (*see, e.g.,* pages 1 and 6 of **Exhibit A**). The JetSort Model 1701 is described in **Exhibit A** as enabling a user to “add identification numbers to *sub-batches* and *batches* of coins” and that “[f]or maximum efficiency, data may be keyed simultaneously *while coins are being sorted counted*” (page 2 of **Exhibit A**)(emphasis added). **Exhibit A** amply illustrates what was notoriously well-known in the art¹ at the time of the invention and depicts coins trays (stationary trays or “lift” trays) into which batches or sub-batches of coins (*i.e.,* bulk coin) are disposed by the user (*see, e.g.,* page 2).² The JetSort Model 1701, for example, included a lift tray that permitted a user to lift the tray to dump the coins, *en masse*, into the coin hopper by upwardly pivoting the lift tray about its axis of rotation (*see, e.g.,* page 4 of **Exhibit A**). Page 5 of **Exhibit A** shows the stationary sorting head of the machine (*see, e.g.,* FIG. 59 of Appellants’ specification) in a raised position relative to the horizontal

¹ For example, Cummins-Allison JetSort coin processing machines were sold “through 50+ Cummins Sales & Services Offices” in “50 cities” (*see, e.g.,* pages 4 (top) and 5 (bottom) of **Exhibit A**).

² The configurations of the JetSort coin processing machines shown in of **Exhibit A** have an open front (*i.e.,* the coin bags are easily accessible to a user) and are particularly configured for use by employees in an environment such as behind the counter of a financial institution. The illustrated configurations in **Exhibit A** do not reflect a redemption application, wherein the coin bags or receptacle(s) would be locked within the JetSort housing.

rotatable disc (*see, e.g.*, rotatable disc 1513 in FIGS. 58, 60-61 of Appellants' specification; ¶ 416). In other configurations having a fixed tray (*e.g.*, JetSort 1770), the user would push the bulk coins manually toward and into the hopper, as is shown by way of example in U.S. Pat. No. 4,543,969 (FIG. 1), which is of record, is assigned to Cummins-Allison Corp. (the assignee of the present application), is incorporated by reference in Appellants' specification, and is discussed in Appellants' Appeal Brief (*see, e.g.*, pages 9-10). As noted in the Appeal Brief (*see* sentence bridging pgs. 9-10), U.S. Pat. No. 4,543,969 discloses, for example, that "[t]he coins 11 are manually pushed along the gentle sloping incline of the staging platform 13 and fall into a hopper 17 as indicated by the arrows in FIG. 1" whereupon "[t]he coins are directed by the hopper 17 into the coin sorter apparatus which is comprised of a rotating disk 19 and a stationary disk 21, shown in cross-section in FIG. 1" (*see, e.g.*, col. 3, lines 45-62)(emphasis added).

Notably, the Examiner's Answer is utterly silent as to the disclosure of and implications of **Exhibit A** (or the other references in the application file wrapper which the Examiner has reviewed), as it not only fails to comport with the arguments that the Examiner would have this Honorable Board accept, but also stands in stark opposition thereto. The Examiner continues to maintain that the specification lacks written description because "appellant fails to show that an any point in the invention more than one coin ever being added at a time". Appellant is respectfully nonplussed over the Examiner's continued intransigence as to this conclusion to which the Examiner is wedded. As previously presented, one of ordinary skill in the art would readily understand that the entire structure of the disclosed coin processing machine (see FIGS. 56f and 58-69) is, by design³, a "***high speed***" (*see, e.g.*, page 119, line 25 to page 120, line 3)(emphasis added) coin processing machine configured for rapid sorting of bulk coins.

³ For example, as previously noted, such person of ordinary skill in the art at the time of the invention would note particularly the use of a hopper 1510 (see page 118, lines 8-31; FIG. 58) to hold and convey bulk coins for

The Examiner further alleges that “[t]he appellant argues (Appeal Brief, Section 7, pg. 6) that the use of a hopper *makes up for the deficiency of the teaching of adding bulk coins*” to which the Examiner disagreed (page 12 of Examiner’s Answer, numbered paragraph (10)) (emphasis added). Appellant noted in the Appeal Brief the use of the term “hopper” in both the specification and in conventional usage (*see* pages 6-7 of Appeal Brief). Appellant’s citation of this disclosure relating to the hopper was not to “make up for” any deficiency in the teaching of the specification, but was presented to highlight the unreasonableness of the Examiner’s interpretation of the written description to help facilitate the Examiner’s understanding of the specification disclosure. Appellant further supplemented this disclosure with an example of U.S. Pat. No. 4,543,969, incorporated by reference in its entirety in Appellant’s application on page 118, lines 16-17 (and assigned to the same assignee, Cummins-Allison Corp.), provides an illustration of a coin “hopper” in relation to a coin input tray (*see* FIG. 1 therein)). As was noted in the Appeal Brief (pg. 9) Appellant was citing the Cummins-Allison U.S. Pat. No. 4,543,969 to illustrate that such disclosure was well known in the art at the time of the invention and to provide a representative example of what was known to those of ordinary skill in the art at the time of the invention. *See, e.g., Hybritech Incorporated v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986) (“a patent need not teach, and preferably omits, what is well known in the art”); *Capon v. Eshhar*, 418 F.3d 1349, 1357, 76 USPQ2d 1078, 1085 (Fed. Cir. 2005). It is well-known in the art to specifically provide a hopper to receive bulk coins. Again, Appellants remarks concerning the hopper and use of a hopper are not attempting

processing, the use of a motor 1514 driven disc 1513 (*see* page 118, lines 23-31; FIG. 58) to impart a sufficient rotational velocity so that “the coins 1525 deposited on the top surface thereof tend to slide outwardly over the surface of the pad due to centrifugal force” (*see, e.g.,* page 119, lines 12-24), the disclosure that the sorting operation is “*high speed*” (*see, e.g.,* page 119, line 25 to page 120, line 3)(emphasis added), the disclosure that the sorting head 1512 includes “various channels and other means especially designed for *high-speed sorting* with positive control of the coins” (*see, e.g.,* page 120, lines 4-15)(emphasis added).

to “make up for” any deficiency in the teaching of the specification, but to set the facts of the record straight as to the import of the disclosed coin hopper.

As it turns out, the Examiner’s Answer is replete with yet additional misleading and incorrect assertions characterized as fact. The Examiner states that “[t]he ‘hopper’ used by the appellant *is used to collect coins after they have been physically added one by one into the machine*” (pages 12-13 of Examiner’s Answer, numbered paragraph (10))(emphasis added). The Examiner asserts this as a fact, which it is not. The hopper is not used to collect coins “after they have been physically added one by one into the machine.” There is nothing in the specification or file wrapper that would support the Examiner’s position. Instead, to the contrary, and further to the remarks presented in the Appeal Brief, it is noted that Appellant’s specification discloses that, regarding coin deposits, the user “has several options for distribution destinations” including having “an amount distributed to a user account,” “to distribute an amount in the form of loose document to the user,” “to distribute the amount to creditors,” or “to make payment of fees to creditors” such fees which might include “mortgage payments, for example.” (*see* ¶¶ [0402]-[0404]). Paragraph [0402], for example, notes the availability of distribution destinations for coin deposits, referencing FIG. 2 and FIGS. “58b [*sic*: 56b], 58c [*sic*: 56c], and 58d [*sic*: 56d].” The specification continues on to provide examples where “the user may wish to have certain denominations returned to him” such as “to allocate a \$100 deposit as four \$20 bills, one \$10 bill, and two \$5 bills” (par. ¶ 0405]) or “for a \$500 deposit, a user may allocate \$250 to a savings account and 5250 to a checking account” (par. ¶ 0406]). Depositing \$100 or \$500 worth of mixed coins (*e.g.*, \$500 of mixed coins could comprise, for example, 4,000 coins: 1,000 quarters, 2,000 dimes, and 1,000 nickels) “one at a time” as is being alleged by the Examiner would require an inordinate amount of time (*e.g.*, over an hour for 4,000 coins at an incredible

pace of one coin input per second or two to three hours at a more reasonable pace) as well as physical stamina and a great deal of patience. The Supreme Court in *KSR*, noted *supra*, made mention of the application of “common sense” to the determination of obviousness under 35 U.S.C. § 103, commenting that “[r]igid preventative rules that deny recourse to common sense are neither necessary under, nor consistent with, this Court’s case law” 127 S. Ct. 1727, __; 167 L. Ed. 2d 705, 713. Likewise, Appellant respectfully submits that the Examiner’s conclusions under 35 U.S.C. § 112 should not escape scrutiny under nor be divorced from application of “common sense”. Appellant’s disclose a “high speed” coin processing device that allows users to deposit large quantities of coins (*e.g.*, \$100, \$500, a mortgage payment, etc.) and allocate a destination or type of distribution. Even absent any consideration of what those of ordinary skill in the art would understand the Appellant’s specification to disclosure in view of such hypothetical ordinary person’s knowledge of the prior art, the specification itself provides examples that are logically untenable under the Examiner’s improper and highly selective reading of the specification (*i.e.*, that coins are input “one at a time” and that FIG. 58, for example, “teaches coins landing on a disc and does not teach more than one coin being added at a time into the invention” (*see* page 13 of Examiner’s Answer, numbered paragraph (10))).

Graham v. John Deere Co. of Kansas City holds that, in an objective analysis for applying § 103, “the scope and content of the prior art are . . . determined; differences between the prior art and the claims at issue are . . . ascertained; **and the level of ordinary skill in the pertinent art resolved**” and that “[a]gainst this background the obviousness or nonobviousness of the subject matter is determined.” 383 U.S. 1, 17-18, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966)(emphasis added).

Graham v. John Deere Co. of Kansas City states that the person of ordinary skill in that art is a person who “thinks along the line of conventional wisdom in the art and is not one who undertakes to innovate.” *Id.* More recently, the Supreme Court in *KSR* declared that the person of ordinary skill in the art “*is also a person of ordinary creativity, not an automaton*” and, “in many cases . . . will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 82 USPQ2d 1385, 1397 (2007); *see also Allvoice Computing PLC v. Nuance Communications, Inc.*, 504 F.3d 1236, 1242, 8 USPQ2d 1886 (Fed. Cir. 2007); MPEP § 2141.03. The case law further indicates that such person having ordinary skill in the art is presumed to be aware of “all the pertinent prior art” (*see, e.g., In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (the law “presumes that all prior art references in the field of invention are available to this hypothetical skilled artisan”); *Custom Accessories, Inc. v. Jeffrey-Allan Indus.*, 807 F.2d 955, 962 (Fed. Cir. 1986) (“The person of ordinary skill is a hypothetical person who is presumed to be aware of all the pertinent prior art.”); *In re Winslow*, 365 F.2d 1017 (C.C.P.A. 1966) (setting out the image of a person having ordinary skill in the art working in a lab with prior art taped to the walls around him). Against this backdrop, it is not understood how the Examiner can urge to this Honorable Board to adopt positions inconsistent with the pertinent art of record in the file wrapper, including *Appellant’s own* prior patents and publications as well as patents and publications of Appellants’ competitors, following the Examiner’s consideration of such prior art patents and publications?

Appellant respectfully submits that the Examiner has not resolved the level of **ordinary** skill in the pertinent art, nor has the Examiner appropriately applied such standard in the present case. The skill-level determination is an important guarantee of objectivity in an obviousness analysis. *Al-Site Corp. v. VSZ Int’l Inc.*, 174 F.3d 1308, 1324, 50 USPQ2d 1161, 1171 (Fed. Cir.

1999); *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991) (“The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry”). Instead, the Examiner appears to apply a double standard, apply different levels of “ordinary skill in the art” to different rejections. As to interpretation of the written description under 35 U.S.C. § 112, the hypothetical person of ordinary skill in the art brought to bear by the Examiner, as divined from the Examiner’s statements, appears to have faculties beneath that even of an automaton and, moreover, lacks any grounding in the prior art or industry and is unable to understand the Appellant’s disclosure, inexplicably and incorrectly concluding that the disclosed “high speed” sorting machine is one in which a user would put in coins one at a time through an “exit chute” (*e.g.*, the Examiner asserts “Smith has a similar method of depositing coins based on the method of depositing coins depicted in FIG. 66-69” (Examiner’s Answer, page 16, lines 16-20); *compare with* [¶ 0461]). As to the obviousness inquiry under 35 U.S.C. § 103, the hypothetical person of ordinary skill in the art applied by the Examiner appears to be have a very high level of skill and knowledge. Appellants’ respectfully submit that the Examiners’ person of “ordinary skill in the art” with respect to the 35 U.S.C. § 103 rejections is more than “a person of ordinary creativity,” and is instead a person impermissibly imbued with hindsight knowledge of Appellants’ invention.

“USPTO personnel must always remember to use the perspective of one of ordinary skill in the art.” (MPEP § 2106, page 2100-7, Rev. 6, Sept. 2007). “***Claims and disclosures are not to be evaluated in a vacuum.***” *Id.* (emphasis added). If elements of an invention are well known in the art, the applicant does not have to provide a disclosure that describes those elements. Despite this guidance, despite the specification disclosure, the Examiner clings to the position that “the appellant fails to show that at any point in the invention more than one coin ever being

added at a time,” arguing that “[t]he appellant fails to teach that bulk coins can be added [a]s it is only stated in the specification that ‘mixed loose coins’ are added (§ 397)” (see page 12 of Examiner’s Answer, numbered paragraph (10)). To support this contention, the Examiner takes the position that “Figures 66-69 are further evidence to the teaching of the coins being added one at a time” (page 12 of Examiner’s Answer, numbered paragraph (10)). Appellants’ respectfully traverse this statement as being factually incorrect and submit that the Examiner’s conclusion is unsupported and improper.

Figures 66-69 **do not** provide “further evidence to the teaching of the coins being added one at a time,” as is alleged by the Examiner. As discussed in [§ 0461] of Appellant’s specification, “when an invalid coin is detected by one of the discriminating sensors described above, the invalid coin is separated from the valid coins and returned to the customer” wherein such “separation is effected outside the sorting disc by the shunting device illustrated in FIGS. 66-69.” FIGS. 66-69 show a curved exit chute 1800 including two slots 1802, 1804 separated by a movable internal partition 1806. The exit chute 1800 is positioned adjacent an exit channel of the coin sorter (e.g., exit channel 1530 for quarters in FIG. 59) “such that coins exiting the coin sorter are guided into the slot 1802 when the internal partition 1806 is in the down position (FIG. 67).” (see [§ 0461]). When an invalid coin is detected by the discriminating sensor D (see, e.g., D4 in exit channel 1530 in FIG. 59), the actuator 1810 moves the internal partition 1806 to the up position (FIG. 64) so that the invalid coin now enters the slot 1804 of the exit chute 1800 (see [§ 0461]). Thus, coins entering the slot 1804 “are discharged into the tube that conveys those coins to the coin-return slot 62 at the front of the system” (see [§ 0461]).

The Examiner’s reading of FIGS. 66-69 (i.e., that these figures provide evidence relating to “coins being added one at a time”) appears to indicate that the Examiner is viewing FIG. 66 as

representing the serial *input* of coins into the coin processing machine by a customer. Such an interpretation would not only be wholly improper, but would be completely inconsistent with any interpretation that one of ordinary skill in the art at the time of the invention would have taken in view at least of the specification, which clearly describes FIG. 66 as relating to the discharge of coins by the coin processed machine into chute 1800.

The Examiner further summarily dismisses the Appellants' remarks concerning the "loading" of bulk coins, asserting that "[t]he word 'load' does not require adding more than [*sic*: than] one at a time." Appellants agree that the word "load," *in isolation*, does not require adding more than one at a time. However, when taken in context in view of the remainder of the specification, Appellants respectfully submit that the disclosed loading of mixed coins (§ [0397]) takes on a meaning in opposition to that proffered by the Examiner. The phrase "loads mixed coins" used to describe the coin transaction in FIG. 56f bears a striking similarity with the language used to describe the document transaction in FIG. 56a. In FIG. 56a, "[t]he details of conducting a document transaction are illustrated" and "*[t]he user loads mixed documents* at step 11a into the machine." (§ [0387])(emphasis added). Appellants describing the "loading" of "mixed documents" as being accomplished by "placing the documents in receptacle 16 on the machine" (§ [0387])(*see, e.g.*, input receptacle 16 in FIG. 1a and corresponding document receptacle 56 in FIG. 56). Following this placement of documents in the receptacle, "the user initiates the processing of the documents." (§ [0387]). Likewise, in the coin transaction described in FIG. 56f, "the customer *loads mixed coins* into the system at step 12a" and the coins are sorted (step 12b), authenticated (step 12c), and bagged (step 12e) (§ [0397]). The machine continues to perform these steps, while also ensuring that the bag limits are not reached during the coin processing (*i.e.*, by the sheer volume of coins that can be processed, it is possible

to fill a coin bag A during processing of a single batch of coins, thus necessitating the logic and system to permit switching the discharge of coins to a second coin bag B in steps 12h, 12f, and 12i (*see, e.g.*, ¶¶ [0397]-[0399]; FIG. 56f)). Despite this disclosure, as well as the balance of the specification disclosure, the Examiner would have this Honorable Board adopt the Examiner's interpretation that the term "load" in the phrase "loads mixed coins" "requires putting the coins in the slot until 'fill nearly to overflowing'" (pages 13 of Examiner's Answer, numbered paragraph (10)). To what "slot" does the Examiner refer? To what portion of the specification does the Examiner cite for support of this interpretation? Appellants respectfully submit that there is no cognizable basis for the Examiner's proffered interpretation of Appellant's specification and such unsupported speculation should be properly reversed.

Appellants respectfully submit that the Examiner's interpretation of the specification is divorced from any semblance of perspective of one of ordinary skill in the art and can only be fairly characterized as being impermissibly "evaluated in a vacuum." From at least the above-noted improper reading by the Examiner of FIGS. 66-69, the Examiner's unfounded and improper reading of the disclosed hopper as being "used to collect coins after they have been physically added one by one into the machine" (sentence bringing pages 12-13 of Examiner's Answer), and the Examiner's assertion that "Figure 58 . . . does not teach more than one coin being added at a time" (*Id.*), Appellant respectfully submits that the Examiner's 35 U.S.C. § 112, 1st Paragraph written description rejection lacks factual predicate and is legally improper. The written description requirement of § 112 requires the application to "convey with reasonable clarity *to those skilled in the art* that, as of the filing date sought, he or she was in possession of the invention." *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991)(emphasis added); *see also In re Wright*, 866 F.2d 422, 424, 9 USPQ2d 1649,

1651 (Fed. Cir. 1989); *In re Kaslow*, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir. 1983). Appellants respectfully submits that the specification conveys with *reasonable* clarity to a person of ordinary skill in the art that, as of the filing date sought, Appellants were in possession of the presently claimed invention. Appellants respectfully submit that the Examiner not discharged the burden of presenting evidence or reasoning to explain why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims and respectfully submit that the Examiner's 35 U.S.C. § 112, 1st paragraph written description rejection should be reversed for at least the above reasons.

II. CLAIMS 258-261 AND 267-270 ARE NOT INDEFINITE UNDER 35 U.S.C. § 112, 2ND PARAGRAPH

The Examiner takes the position that “where applicant acts as his or her own lexicographer to specifically define a term of a claim *contrary to its ordinary meaning*, the written description **must** clearly redefine the claim term and set forth the *uncommon definition* so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term” (page 14 of Examiner's Answer, numbered paragraph (10))(emphasis added).

The Examiner thus appears to indicate that the Appellant's proffered interpretation of the term “singulating” is somehow “contrary to its ordinary meaning” and is an “uncommon definition,” yet the Examiner fails to offer any clear interpretation or explanation as to how Appellant's use of the term is, in any way, “uncommon” or “contrary to its ordinary meaning.” Particularly absent from the Examiner's Answer is any presentation of an “accepted” meaning of “singulate” or “singulating” by the Examiner. Responsive apparently to Appellant's remarks concerning the use of the term “singulating” in other patents and its usage in the art (citing Appeal Brief, Section 7, pg. 13), the Examiner states in the Examiner's Answer that “upon

further look into the use of singulating in other patents a gamut of different uses of the word are found from transportation, to corn cutters, to wafer molding, to semi conductors” (page 14 of Examiner’s Answer, numbered paragraph (10)). This statement merely acknowledges Appellant’s remarks that “[t]he term singulation is not only used in Appellant’s art, but in many other arts to generally refer to the orderly processing of objects or information one at a time (e.g., singulation of a wafer to create individual semiconductor packages; singulation of RFID signals; singulation of statistical data; singulation of coins; singulation of documents, singulation of processed articles, etc.).” (*see* page 13, lines 16-20 of Appeal Brief).

However, the Examiner did not contest Appellants’ position that the term singulation is used in these various arts to convey the same general concept of the orderly processing of objects (or information) one at a time. Instead, the Examiner took the position that “[t]he appellant merely states that it was used in prior applications yet not defined in known dictionaries or even defined in the appellant’s specification” and stated that “[t]he appellant is free to be their own lexicographer only in cases where there is adequate support in their written description” and that “[t]here is not adequate support for the term singulating in the written description” (page 14 of Examiner’s Answer, numbered paragraph (10)). The Examiner’s position mischaracterizes the proper focus of the definiteness inquiry, which requires that definiteness of claim language must be analyzed in light of the content of (1) the application disclosure, (2) the teachings of the prior art, and (3) the claim interpretation that would be given by one of ordinary skill in the art at the time the invention was made. *See, e.g., In re Moore*, 439 F.2d 1232, 1235; 169 USPQ 236, 238 (CCPA 1971).

The application disclosure itself is only one of the factors to be considered. The absence of the word “singulate” or “singulation” in a conventional desktop dictionary is hardly dispositive

as to the accepted meaning of this term. Instead, the Examiner is required to further examine “the teachings of the prior art” and “the claim interpretation that would be given by one of ordinary skill in the art at the time the invention was made.” “The inventor’s words that are used to describe the invention--the inventor’s lexicography--must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*). To illustrate, one reference of record, reviewed on July 20, 2007, is U.S. Pat. No. 5,988,348 to Martin et al. (hereinafter “U.S. Pat. No. 5,988,348”) is particularly instructive as to the proper interpretation of the term(s) in question. U.S. Pat. No. 5,988,348 is assigned to Coinstar, Inc., a direct competitor of Cummins-Allison (assignee of the present application at issue) in certain aspects of the coin processing machine market, specifically coin redemption. In this regard, the legion of inventors listed in U.S. Pat. No. 5,988,348 are not hypothetical constructs, but are actual persons in Appellant’s field, and serve as exemplary subjects illustrating how the terms “singulated,” “singulating,” or variants thereof have been and are used by those in Appellant’s field of technology and, correspondingly, how such terms would be interpreted at least by those skilled in Appellants’ art. The abstract of U.S. Pat. No. 5,988,348 states that “[c]oins, preferably after cleaning, e.g. using a trommel, are **singulated** by a coin pickup assembly configured to reduce jamming” (emphasis added). U.S. Pat. No. 5,988,348 further states that “[a]ccording to one embodiment of the invention, after input and, preferably, cleaning, coins are **singulated** and move past a sensor for discrimination, counting and/or sorting.” (col. 3, line 66 to col. 4, line 2)(emphasis added). U.S. Pat. No. 5,988,348 further states that “[t]he coin rail 56 functions to receive coins output by the coin pickup assembly 54, **and transports the coins in a singulated (one-at-a-time) fashion** past the sensor 58 to the diverting door 62” and that “[s]ingulation and

separation of coins is of particular use in connection with the described sensor, although other types of sensors may also benefit from coin *singulation* and spacing.” (col. 13, lines 28-34)(emphasis added). Yet further, U.S. Pat. No. 5,988,348 states that “[a]s seen in FIG. 22, as the coins enter the coin rail 56, the coins are typically horizontally *singulated*, i.e., coins are in single file, albeit possibly adjacent or touching one another.” (col. 13, lines 28-34)(emphasis added). Still further, U.S. Pat. No. 5,988,348 states that “[a] number of features of the coin rail 56 contribute to changing the coins from the bunched configuration to a *singulated*, and eventually separated, series of coins by the time they move past the sensor 58.” (col. 14, lines 6-9). Although additional examples of the use of the term “singulation” or variants thereof within Appellants’ field of endeavor are also of record, this example is believed sufficiently demonstrative such that other examples may be omitted for brevity.

U.S. Pat. No. 5,988,348, of record in the file wrapper, convincingly illustrates both the teachings of the prior art and the claim interpretation that would be given by one of ordinary skill in the art at the time the invention was made. It is with such understanding of one of ordinary skill in the art, to which the written description is directed, that the disclosure of Appellants’ specification can be unmistakably be understood to disclose “singulating the bulk coins using a coin separation device,” as claimed. For example, as disclosed by Appellants’ specification, means are provided (*see, e.g.*, ¶¶ [0416]-[0429]; FIGS. 58-61) to reference the coins to obtain “*a single-file stream of coins* directed against the outer wall 1562” and means to “align the outermost edge of the coins with a gauging wall 1577” (*see* ¶ [0429])(emphasis added). Elsewhere, Appellant’s specification states that “[i]f desired, the coin sorting and discrimination module 19 may be replaced with a coin discriminating module which does not sort the coins or a coin sorting module only” and that “[s]uch modules *would align the coins of*

all denominations in a single file and guide them past a single coin discrimination sensor to determine whether the coins are genuine.” (¶ [0429])(emphasis added). Again, Appellants’ note that the act of singulating the bulk coins using a coin separation device would properly be interpreted as taking bulk coins and physically separating them, using a coin separation device, to provide a single-file stream of coins.

In view of the above Appellants’ respectfully submit that the record does not support the Examiner’s conclusion that 258-261 and 267-270 are indefinite under 35 U.S.C. § 112, 2nd paragraph and that such rejection is factually and legally improper. Appellants respectfully urge this Honorable Board to reverse the Examiner’s 35 U.S.C. § 112, 2nd paragraph rejection.

2. THE 35 U.S.C. § 103 REJECTIONS

I. THE 35 U.S.C. § 103 REJECTION OF CLAIMS 258-261 AND 267-270 IN VIEW OF SMITH AND AVNET

In the Examiner’s Answer, the Examiner states that “[b]ased on FIG. 66-69 filed with the original application it is unclear how the appellant is to have a customer simultaneously deposit bulk coins into the vending device” and asserts that “Smith has a similar method of depositing coins based on the method of depositing coins depicted in FIG. 66-69” (Examiner’s Answer, page 16, lines 16-20).

The Examiner’s statements evince an inadequate understanding of and interpretation of the disclosed and claimed invention and demonstrate that the Examiner’s rejections are fundamentally flawed. As noted above, FIGS. 66-69 are discussed, for example, in [¶ 0461] of Appellant’s specification, which states that “when an invalid coin is detected by one of the discriminating sensors described above, the invalid coin is separated from the valid coins and returned to the customer” wherein such “separation is effected outside the sorting disc by the

shunting device illustrated in FIGS. 66-69.” FIGS. 66-69 show a curved *exit* chute 1800 including two slots 1802, 1804 separated by a movable internal partition 1806. The *exit* chute 1800 is positioned *adjacent an exit channel of the coin sorter* (e.g., exit channel 1530 for quarters in FIG. 59) “such that coins exiting the coin sorter are guided into the slot 1802 when the internal partition 1806 is in the down position (FIG. 67).” (see [¶ 0461]). Contrary to the disclosed function of the *exit* chute in Appellant’s specification, the Examiner erroneously interprets FIGS. 66-69 to depict a “*method of depositing coins*” (Examiner’s Answer, page 16, lines 16-20)(emphasis added). The ultimate determination on patentability is made on the entire record. *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992). The evidence thus indicates that the determination of patentability in the present case is improperly predicated upon, *inter alia*, an inadequate and/or improper reading of the Appellant’s specification. Appellants respectfully submit that, based at least upon this deficiency, the Examiner’s ultimate determination on patentability has not been made on the entire record and critically lacks findings of fact upon which obvious may be properly predicated. A factfinder must be mindful “of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1397 (2007); *see also Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 36 (1966)(warning against a “temptation to read into the prior art the teachings of the invention in issue” and instructing courts to “‘guard against slipping into the use of hindsight’ ” (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412, 141 USPQ 549 (CA6 1964))). In the present case, based on the evidence of record, including the Examiner’s Answer itself, the Examiner appears to have constructed a case of obviousness premised at least in part upon impermissible hindsight and an improper reading of the record.

Withdrawal of this 35 U.S.C. § 103 rejection is requested for at least this reason.

Further, Appellant again respectfully submits that the combination of Smith and Avnet fails to teach or suggest the claimed act of “singulating the bulk coins using a coin separation device”. The customer of the Smith vending machine himself or herself separates any coins desired to be input and places them, one at a time, in slot 35. The vending machine itself includes no coin separation device that performs an act of singulating bulk coins, nor has the MC5 line of coin changers been shown, explicitly or inherently, to disclose or suggest singulation of coins. The Examiner asserts that “Smith teaches receiving the coins individually in the coin acceptor and separating the valid coins from the invalid coins (col. 10, lines 19-55)” (Examiner’s Answer, page 16, lines 1-2). However, the recited act of “singulating the bulk coins using a coin separation device” is a separate element from the act of “discriminating between authentic and non-authentic forms of said money including discriminating between valid coins and invalid coins of said bulk coins”. The fact that the MC5 changer may discriminate between valid and invalid coins individually input by a vending machine customer is immaterial to the failure of Smith to disclose an act of “singulating the bulk coins using a coin separation device.” Avnet is unable to cure the deficiencies of Smith and merely discloses problems associated with the receipt of currency (*e.g.*, providing a ready target for forced entry (col. 1, lines 45-58)) and that it is possible, nonetheless, to provide a currency acceptor 16 “in an area which is more secure than other areas” (*see* col. 3, lines 48-50; col. 4, lines 63-66).

Additionally, Appellants again respectfully submit that Smith and Avnet, whether taken singly or in combination, fail to disclose or suggest an act of “receiving money input by said customer comprising substantially simultaneously receiving, in a bulk coin receptacle, randomly oriented bulk coins input by said customer” (claim 258-261, 267) or “receiving bulk coins input

by said customer, said act of receiving bulk coins comprising substantially simultaneously receiving, in a bulk coin receptacle, randomly oriented bulk coins input by said customer” (claims 268-270). As noted above, Smith discloses a coin device in the vein of the MC5 line of coin changers wherein a customer inputs coins one at a time in slot 35 (*see* FIG. 1). Avnet discloses on col. 2, line 3, that “coins” are accepted and suggests a conventional vending machine apparatus comprising a coin slot, similar to that disclosed in Smith, that is not configured to permit substantially simultaneously receiving, in a bulk coin receptacle, randomly oriented bulk coins input by a customer.

Appellants respectfully submit that the Examiner’s rejection should be reversed for at least the above noted reasons.

Further, attempt to recast his prior acknowledgement that Smith “does not specifically state that a card can be dispensed by the invention,” the Examiner is again taking that position that “Smith *could* teach dispensing a stored value card.” (*see* Examiner’s Answer, page 15, line 12)(emphasis added), particularly noting that “Smith teaches that the disclosed vending machine isn’t a standard machine which would sell snack foods and refreshments” and that “Smith goes on to say ‘for example, video games at video game parlors . . . (col. 7, lines 12-36)’” (*see* Examiner’s Answer, page 15, lines 1-5). The Examiner neglects to note that the example of “video games at video game parlors” was preceded by the statement that “[s]ervices may also be included within the context of machine vended items” and that “[o]ne very traditional example of a pseudo-vending machine which provides services is the pay telephone” (col. 7, lines 19-23). Thus, in context, the providing of “video games at video game parlors” in Smith would not correspond to the dispensing of any “technology” as alleged by the Examiner, but rather the providing of a service through the pseudo-vending machine (*i.e.*, as a pay phone would itself

directly provide the service requested). In other words, Smith discloses the pseudo-vending machine as itself providing the service as opposed to *vending* some technological device. The Examiner then predicates his rejection upon the supposition that “[t]he combination of known elements of Smith and Avnet requires taking Avnet which was known at the time of the invention as a vending machine for dispensing value cards and giving Smith which was known at the time as a vending machine for vending technological devices.” (*see* Examiner’s Answer, page 15, lines 14-17). Again, in asserting that Smith discloses “technological devices,” the Examiner generically recites the **entire** “Detailed Description of the Preferred Embodiments” (**col. 6**, line 42 to **col. 20**, line 13), as well as the Abstract, but points not to a single example of such dispensed “technological device”. In the Examiner’s Answer, the Examiner again stresses that Smith “never limits what the machine can dispense” (page 5, lines 15-16) and states that “since Smith does not teach away it is possible that Smith could dispense a card”. From this vantage, the Examiner concludes and alleges “[i]t would therefore be obvious to one of ordinary skill in the art at the time of invention to modify Smith to include the details of dispensing a card,” stating that “since Smith teaches that there are multiple items that can be dispensed by the machine it would have been obvious for Smith to dispense a value card” (*see* Final Office Action, page 5). The Examiner further states that “[t]he purpose in combining the two references is to teach that vending machines that dispensed cards with values did exist at the time of the invention, and to show Smith *could have* dispensed cards with values” (*see* Final Office Action, page 5)(emphasis added). Appellants respectfully submit that, in rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). Appellant

respectfully submits that the Examiner's assertions do not satisfy the requirements set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

3. CONCLUSION

For the reasons set forth above and for the reasons previously set forth in Appellants' Appeal Brief, Appellants respectfully urge this Honorable Board to reverse the Examiner's 35 U.S.C. § 112 rejection of claims 258-261 and 267-270 under 35 U.S.C. § 112, first and second paragraphs, as well as the Examiner's 35 U.S.C. § 103 rejection of claims 258-261 and 267-270 in view of Smith and Avent, at least upon the grounds noted above.

No fees are believed due in connection with this submission. However, to the extent that any fees may now be required, the Commissioner is hereby authorized to charge deposit account No. 50-4181 (Attorney Docket No. 247171-000373USD1 for any fees owing in connection with this submission of the corrected Appeal Brief, except for the issue fee.

Respectfully submitted,

January 15, 2009

Date

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